

CLAIMS:

1. An apparatus for magnetic resonance imaging comprising:

a magnet having a gap for receiving a patient; and
means for moving said magnet in a substantially vertical direction so that a portion of a region of interest of a patient positioned within said gap can be imaged.

2. The apparatus of claim 1, wherein said magnet further comprises a superconducting solenoidal magnet.

3. The apparatus of claim 1, wherein said magnet further comprises an U-shaped magnet.

4. The apparatus of claim 1, further comprising a patient support positioned within the gap for supporting the patient.

5. The apparatus of claim 1, wherein said means for moving comprises one or more motors that are connected to one or more jacks for lowering or raising said magnet.

6. The apparatus of claim 5, wherein said one or more motors comprise electric motors.

7. The apparatus of claim 5, wherein said one or more motors comprise electromechanical devices capable of imparting the desired motion to said magnet.

8. The apparatus of claim 5, wherein said one or more motors comprise pneumatic devices capable of imparting the desired motion to said magnet.

9. An apparatus for magnetic resonance imaging comprising:

a magnet having a patient receiving space;
a pair of vertical support members connected to said magnet at opposite ends of said magnet; and

one or more motors coupled to at least one of said vertical support members so as to move said magnet in a substantially vertical direction.

10. The apparatus of claim 9, wherein said magnet comprises a solenoidal magnet.

11. The apparatus of claim 10, wherein said magnet comprises a superconducting solenoidal magnet.

12. The apparatus of claim 9, wherein said magnet comprises a U-shaped magnet.

13. The apparatus of claim 9, wherein said one or more motors comprise at least one electrical device capable of causing the desired motion to said vertical support members.

14. The apparatus of claim 9, wherein said one or more motors comprise at least one electromechanical device capable of imparting the desired motion to said vertical support members.

15. The apparatus of claim 9, wherein said one or more motors comprise at least one pneumatic device capable of imparting the desired motion to said vertical support members.

16. The apparatus of claim 9, wherein said one or more motors comprise at least one hydraulic device capable of imparting the desired motion to said vertical support members.

17. A method for magnetic resonance imaging comprising:

establishing a static magnetic field between a magnet gap;

positioning a patient within a patient receiving space;

positioning the static magnetic field by substantially vertically translating the magnet so that the magnet gap envelops a portion of the patient's anatomy; and

supplying a gradient field to the static magnetic field so as to obtain a magnetic resonance image of the patient's anatomy.

18. The method of claim 17, wherein positioning the static magnetic field comprises lowering the magnet so that the magnet gap envelops a portion of the patient's anatomy.

19. The method claim 17, wherein positioning a patient comprises supporting the patient on a patient support and placing the patient support in the patient receiving space.

20. The method of claim 17, wherein positioning the static magnetic field comprises lowering the magnet on a pair of screw jacks operatively coupled to one or more motors.